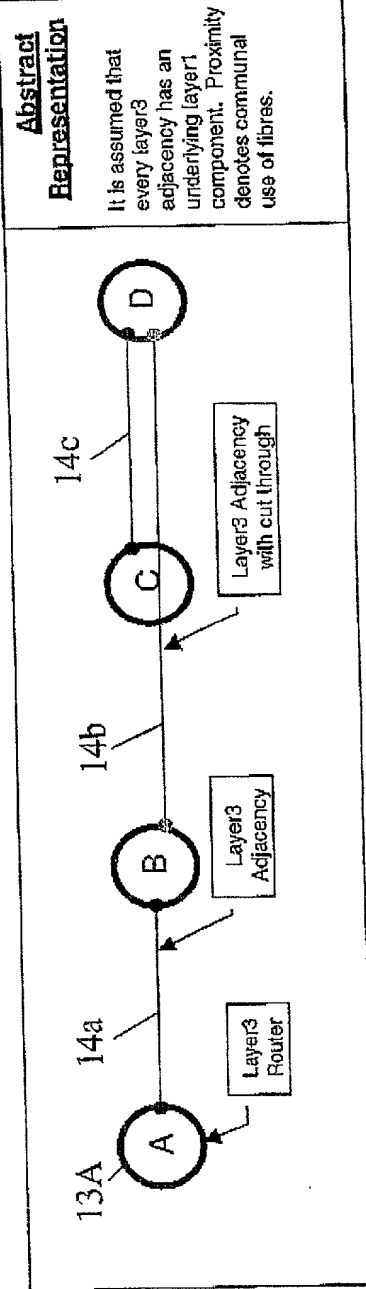
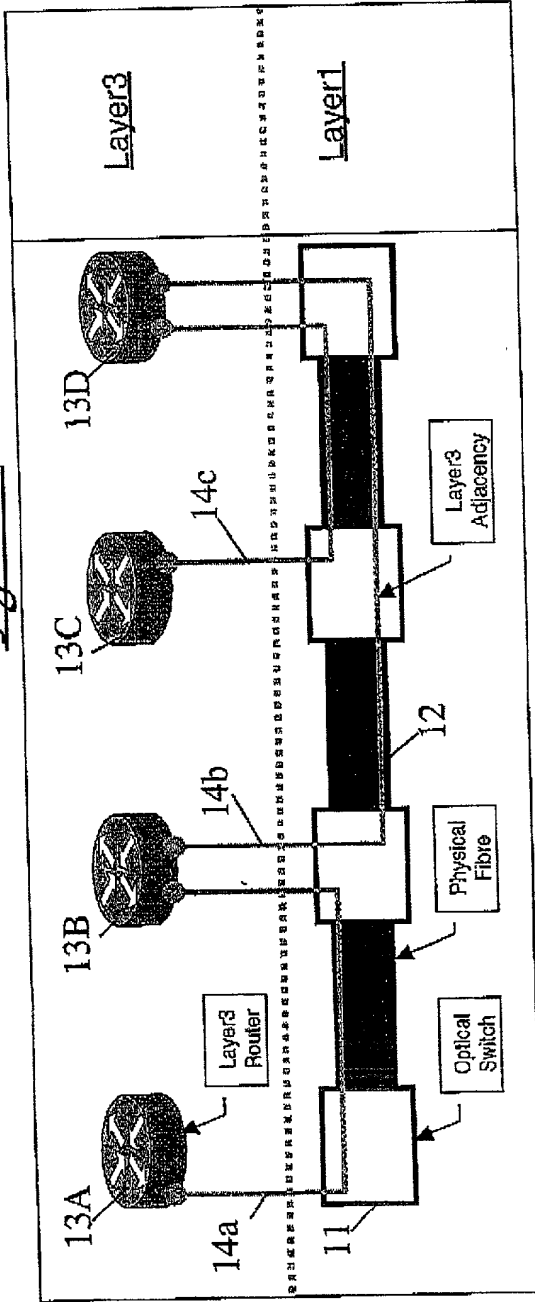


Figure 1a



Abstract Representation

It is assumed that every layer3 adjacency has an underlying layer1 component. Proximity denotes communal use of fibres.

Figure 1b

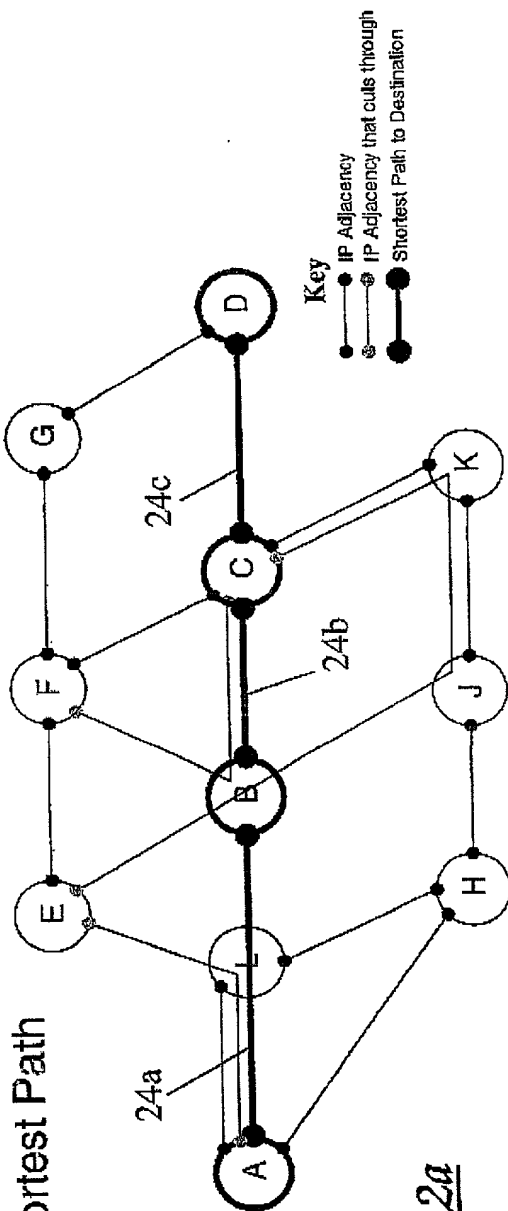


Figure 2a

	Shortest Path	Protection Path	Adjacencies Broken	
Protection level 7	A B C D	A E C	A-B	
Protection level 6	A B C D	A E C	A-B B-C	
Protection level 5	A B C D	A E F C	A-B B-C C-F C-E	
Protection level 4	A B C D	A H J K C	A-B A-E A-L	
Protection level 3	A B C D	A H J K C	A-B A-E A-L B-C C-F C-E	
Protection level 2	A B C D	A E C	A-B A-L B-C C-F C-E H-L	
Protection level 1	A B C D	A H J K C	A-B A-E A-L B-C C-F C-E H-L	

Figure 2b

Layer 3 element of network

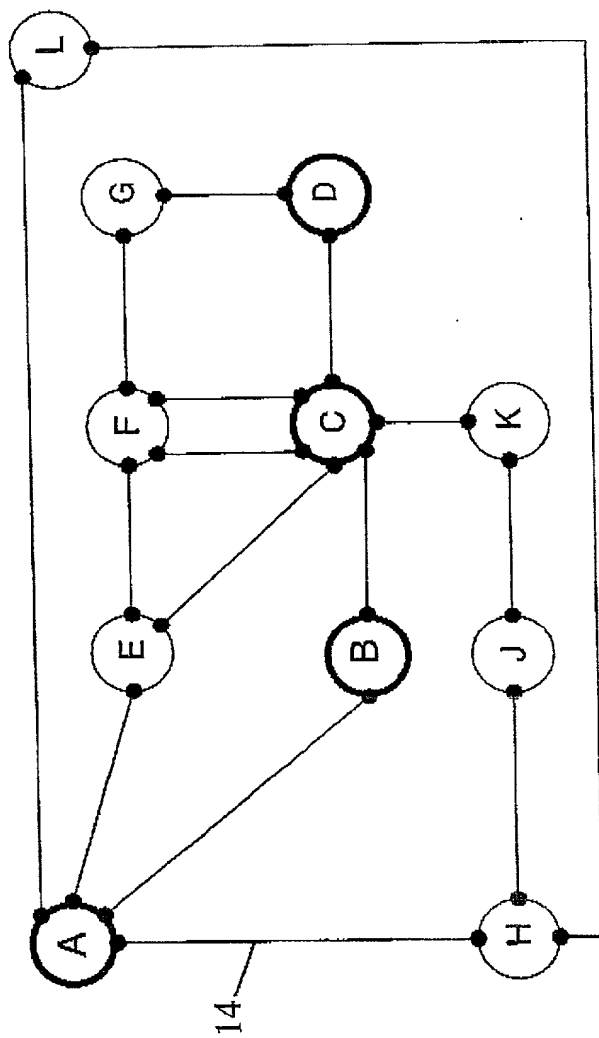


Figure 3a

FILED "E42B4360

Layer 1 element of network

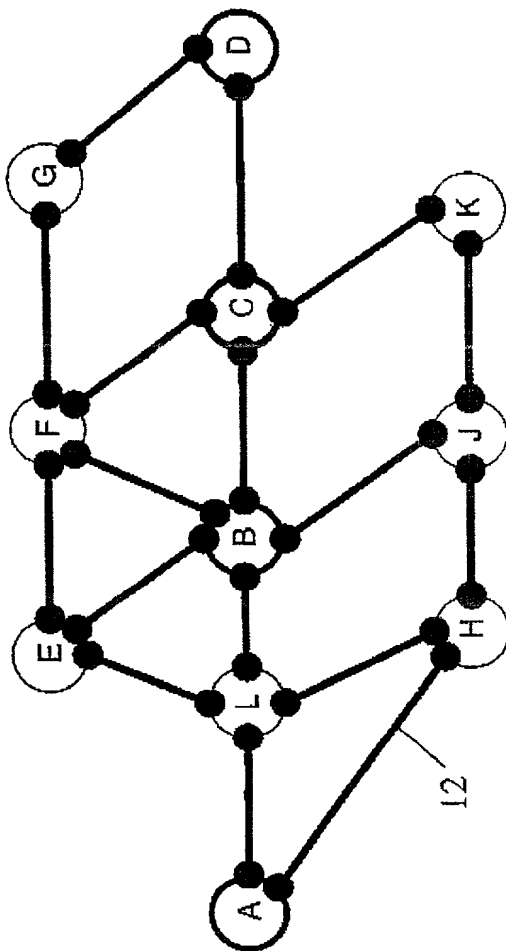


Figure 36

Combined network diagram

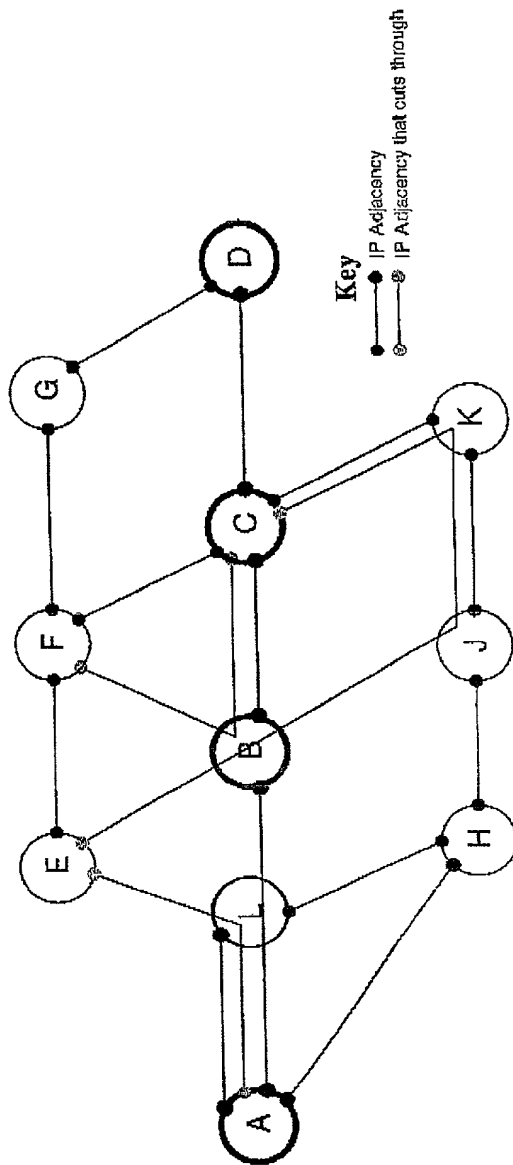


Figure 3c

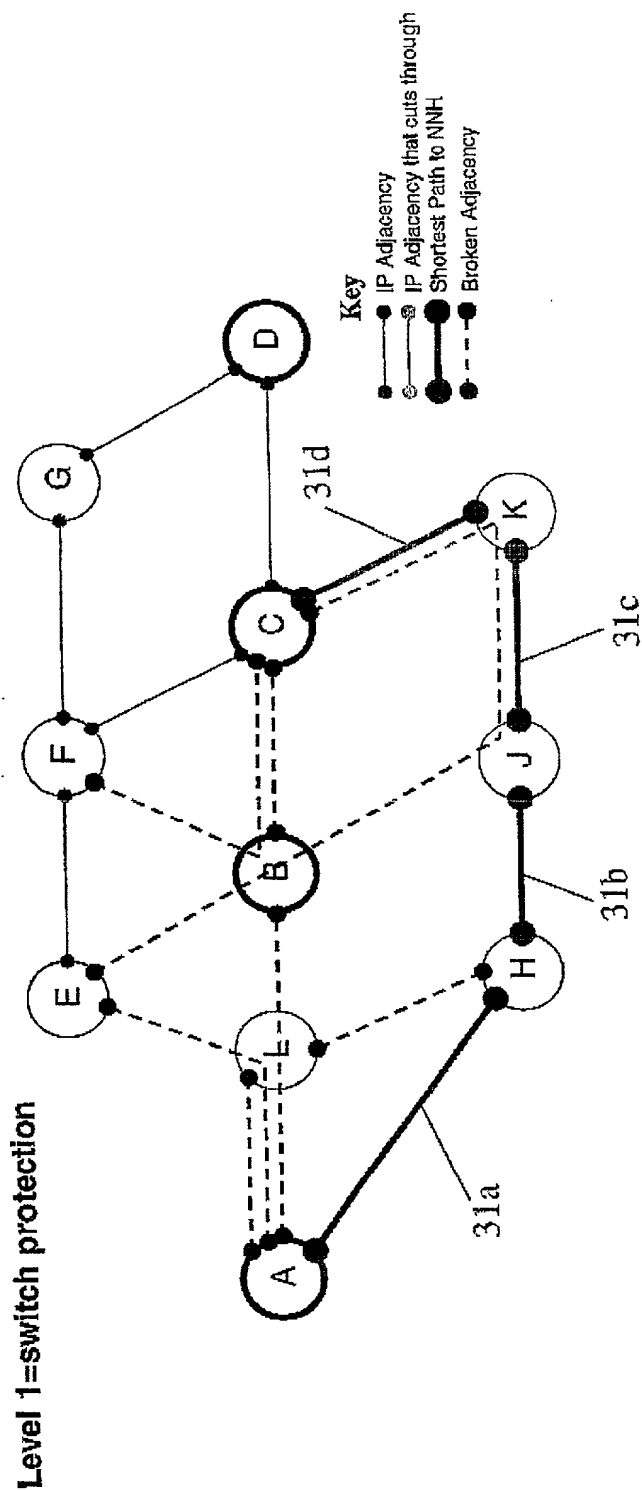
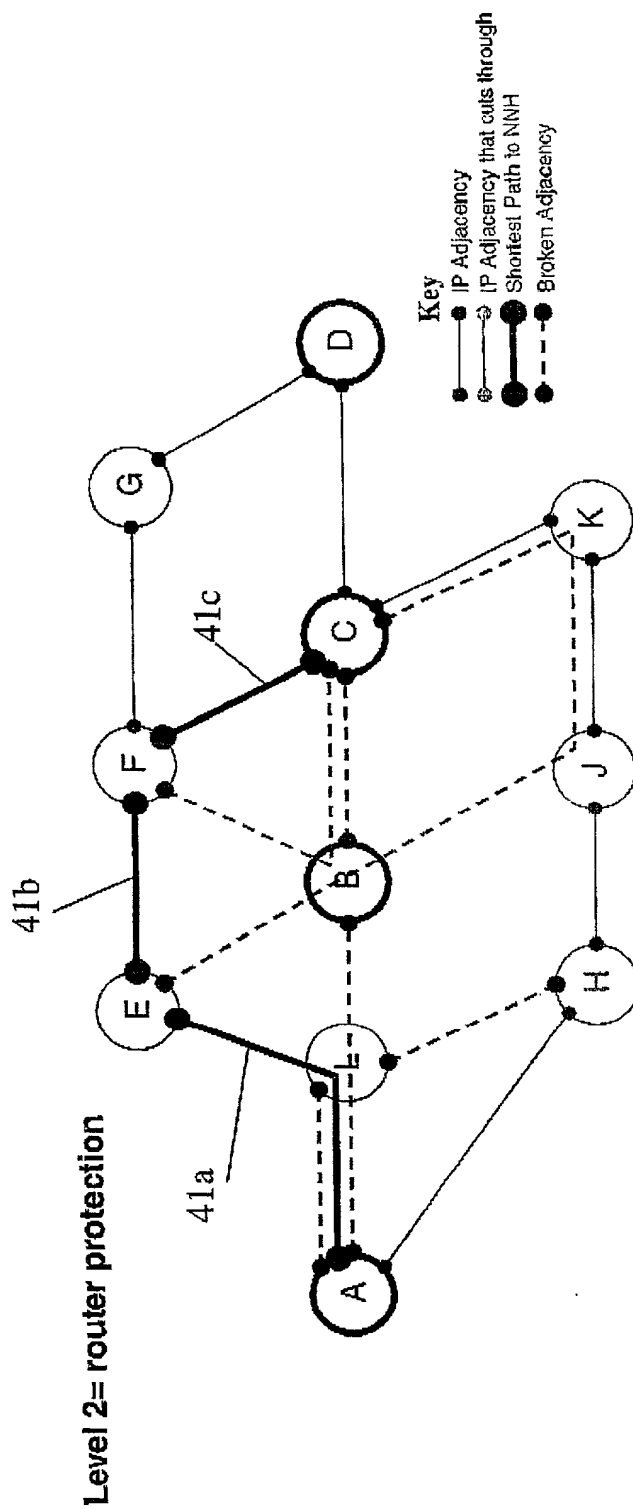


Figure 4

T0E050: E4434860

Figure 5

Level 3=fibre protection

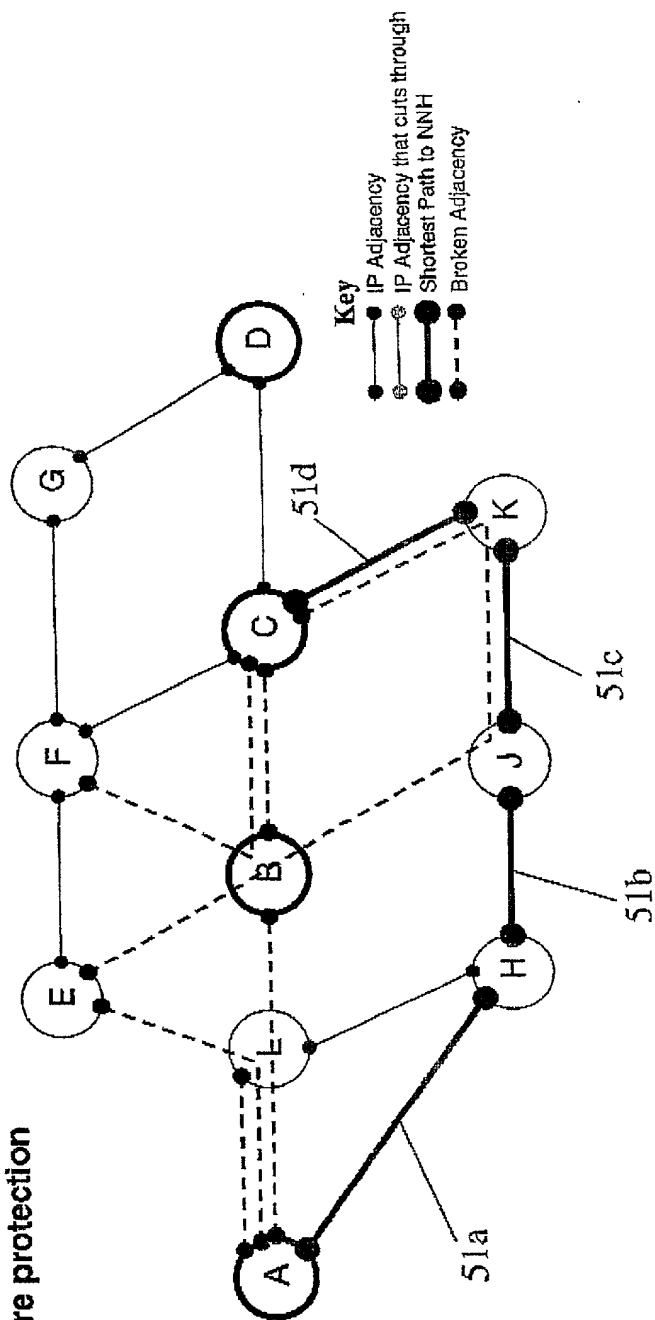


Figure 6

FIG. 50 "E4281360"

Level 4=fibre protection

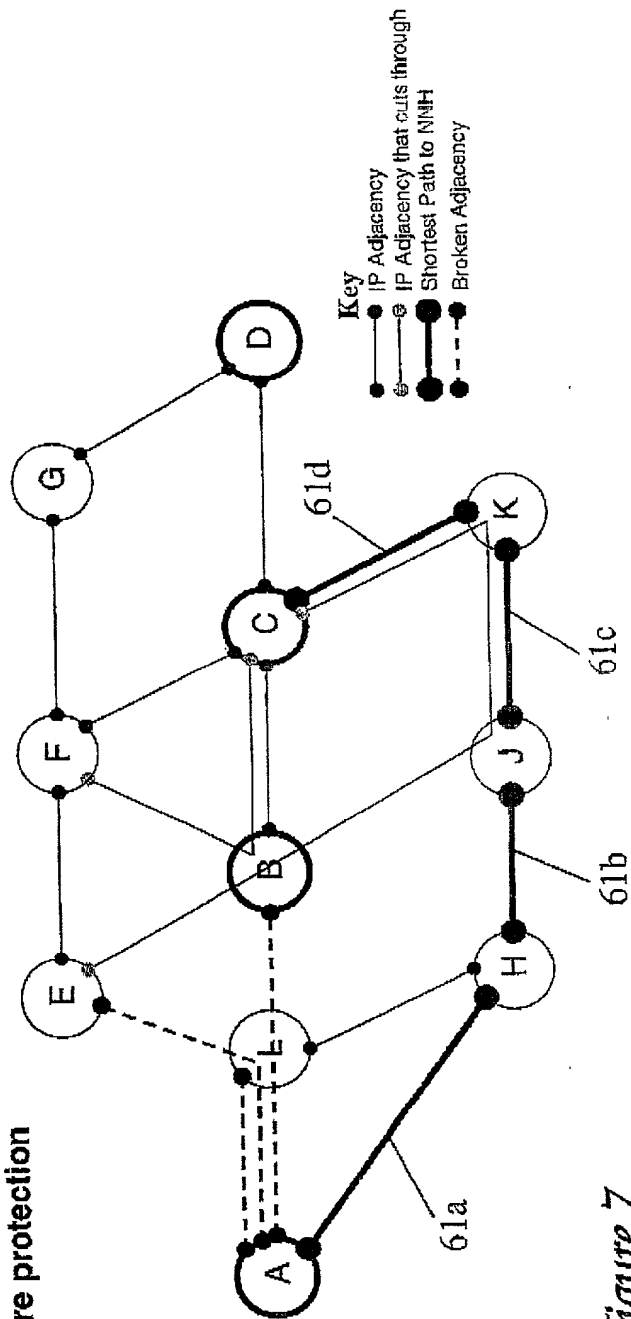


Figure 7

Level 6= next hop
protection (layer3)

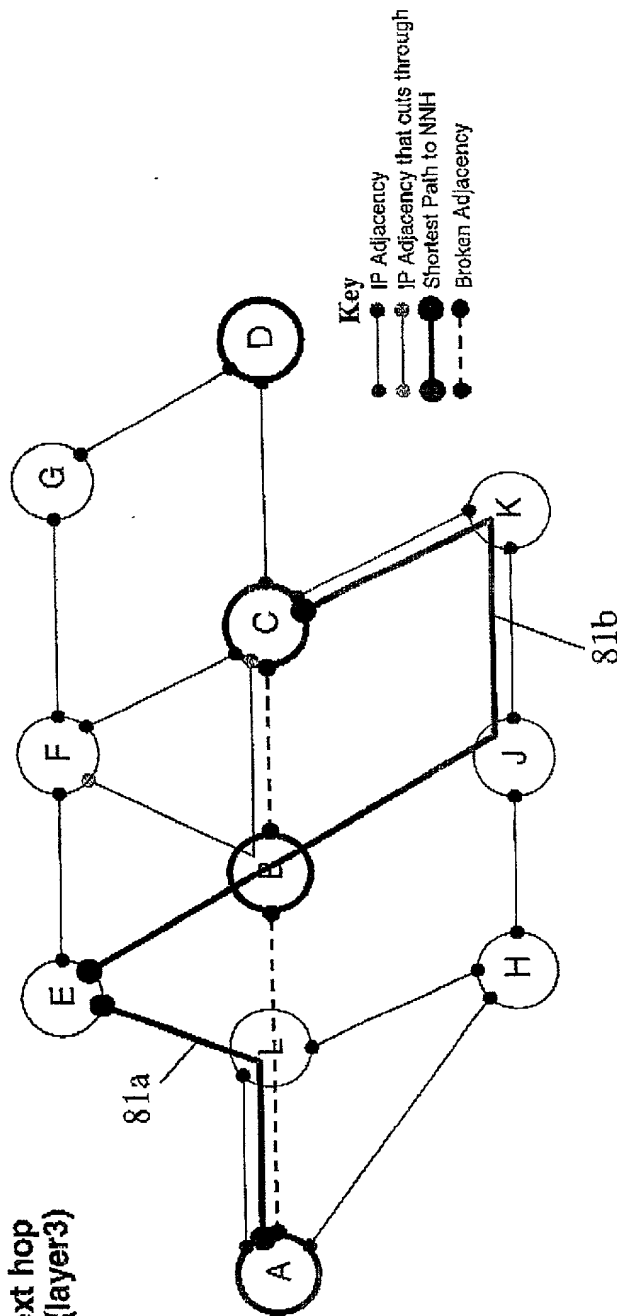


Figure 9

TUESDAY, 04/28/00

Level 7=next hop
adjacency protection

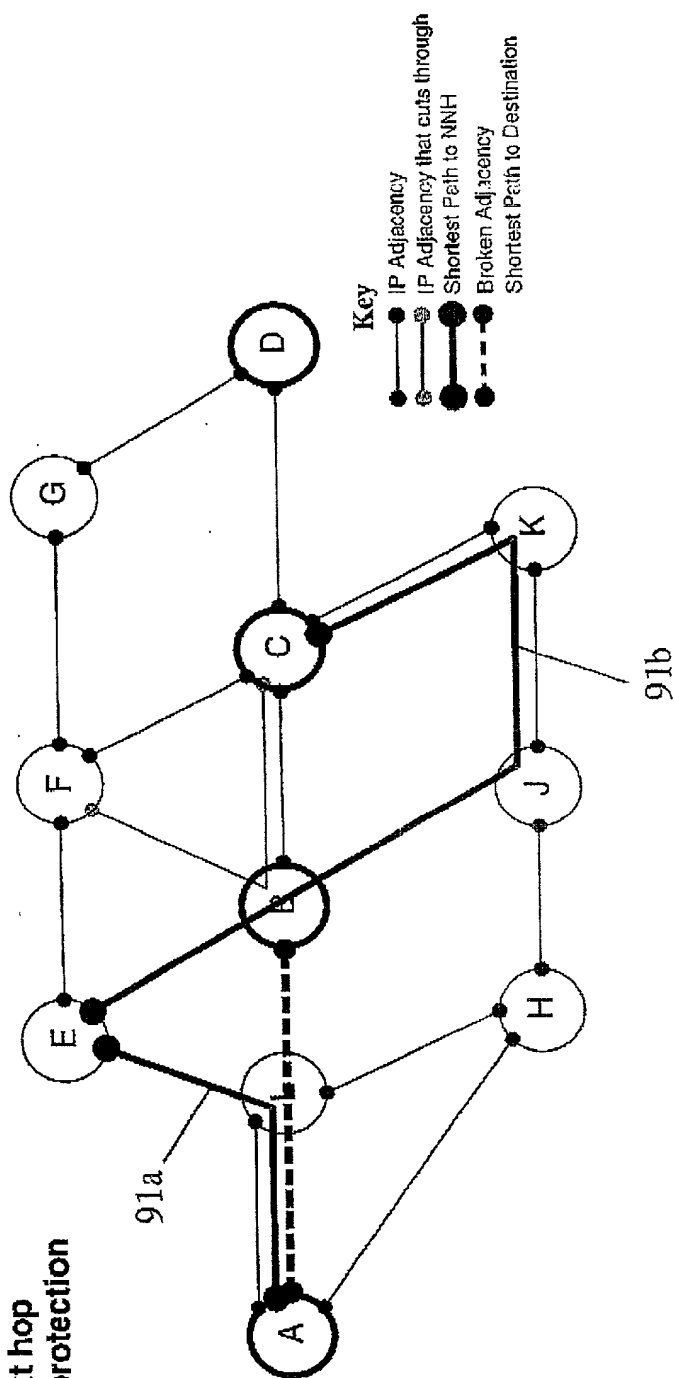


Figure 10

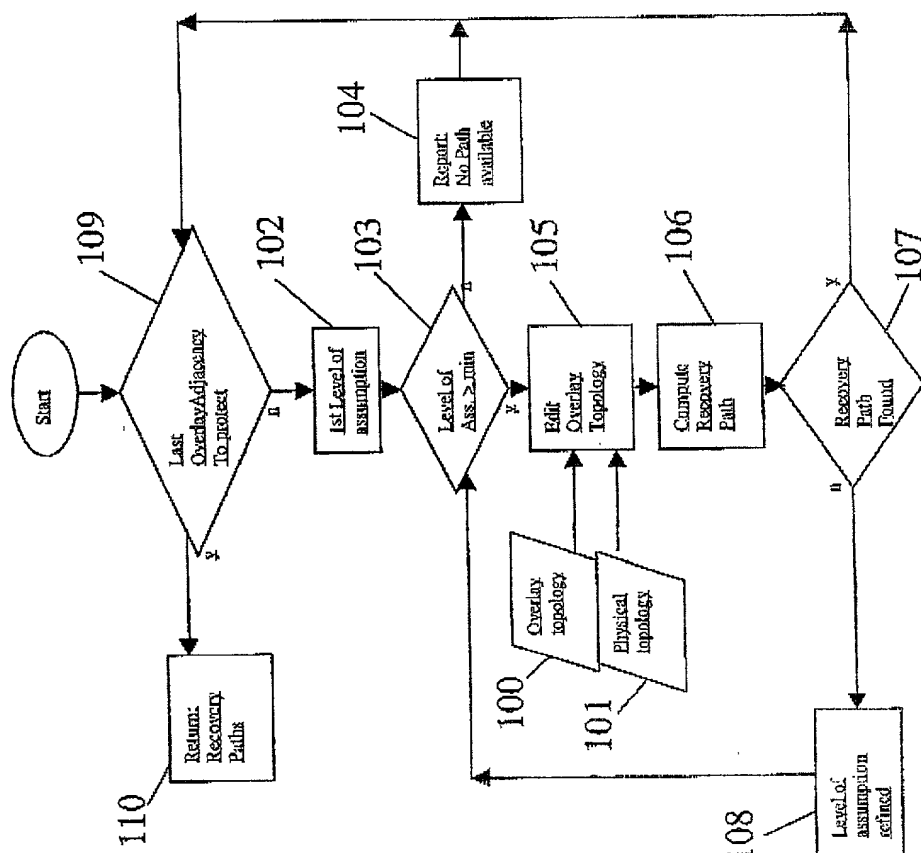


Figure 11